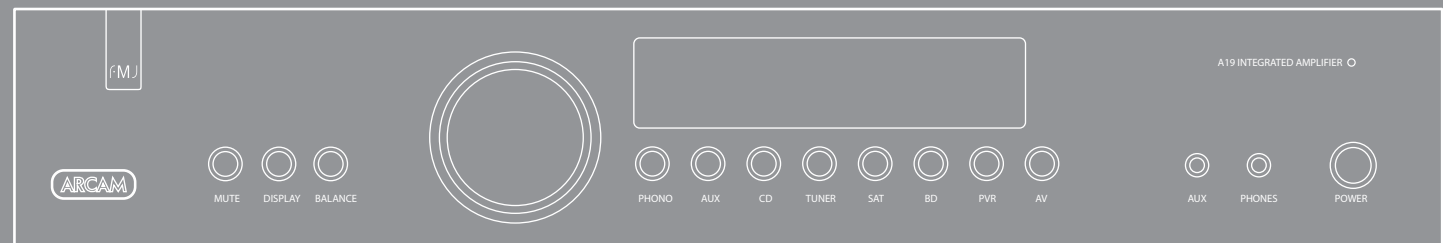


ARCAM

English

f·M·J A19

HANDBOOK Integrated amplifier



safety guidelines

Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug.

A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

- 12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.**

When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.**

- 14. Refer all servicing to qualified service personnel.**

Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

- 15. Object or liquid entry**

WARNING – Take care that objects do not fall and liquids are not spilled into the enclosure through any openings. The equipment shall not be exposed to dripping or splashing. Liquid-filled objects such as vases should not be placed on the equipment.

- 16. Climate**

The equipment has been designed for use in moderate climates and in domestic situations.



CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.



WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.



The lightning flash with an arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: In Canada and the USA, to prevent electric shock, match the wide blade of the plug to the wide slot in the socket and insert the plug fully into the socket.

- 17. Cleaning**

Unplug the unit from the mains supply before cleaning.

The case should normally only require a wipe with a soft, lint-free cloth. Do not use chemical solvents for cleaning.

We do not advise the use of furniture cleaning sprays or polishes as they can cause permanent white marks.

- 18. Power sources**

Only connect the equipment to a power supply of the type described in the operating instructions or as marked on the equipment.

The primary method of isolating the equipment from the mains supply is to remove the mains plug. The equipment must be installed in a manner that makes disconnection possible.

- 19. Abnormal smell**

If an abnormal smell or smoke is detected from the equipment, turn the power off immediately and unplug the equipment from the wall outlet. Contact your dealer and do not reconnect the equipment.

Class II product



This equipment is a Class II or double insulated electrical appliance. It has been designed in such a way that it does not require a safety connection to electrical earth ('ground' in the U.S.).

Warning

Mains plug/appliance coupler is used to disconnect device and it shall remain readily operable.

- 20. Damage requiring service**

The equipment should be serviced by qualified service personnel when:

- A. the power-supply cord or the plug has been damaged, or
- B. objects have fallen, or liquid has spilled into the equipment, or
- C. the equipment has been exposed to rain, or
- D. the equipment does not appear to operate normally or exhibits a marked change in performance, or
- E. the equipment has been dropped or the enclosure damaged.

Safety compliance

This equipment has been designed to meet the IEC/EN 60065 international electrical safety standard.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

The building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.

welcome...

Thank you and congratulations for purchasing your Arcam FMJ Amplifier.

Arcam has been producing specialist audio products of remarkable quality for over three decades and the new A19 amplifier is the latest in a long line of award winning HiFi. The design of the FMJ range draws upon all of Arcam's experience as one of the UK's most respected audio companies, to produce Arcam's best performing range of stereo amplifiers yet – designed and built to give you years of listening enjoyment.

This handbook is a guide to installing and using the A19 Integrated Amplifier, including information on the more advanced features. Use the contents list shown on this page to guide you to the section of interest.

We hope that your FMJ amplifier will give you years of trouble-free operation. In the unlikely event of any fault, or if you simply require further information about Arcam products, our network of dealers will be happy to help you. Further information can also be found on the Arcam website at www.arcam.co.uk.

The FMJ development team

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overview

Arcam's A19 Integrated Amplifier provides class-leading sound quality.

Drawing on the many years of amplifier design experience at Arcam, the A19 uses the best quality components and engineering practice to produce a product that will give many years of musical pleasure and reliable service.

With a torrodial power supply, acoustically damped chassis and very low levels of noise and distortion, the A19 reproduces music with all its original authority and detail.

The A19 Integrated Amplifier is designed to produce a level of performance that will truly bring music to life.



Placing the unit

- Place the amplifier on a level, firm surface, avoiding direct sunlight and sources of heat or damp.
- Do not place the A19 on top of a power amplifier or other source of heat.
- Do not place the amplifier in an enclosed space such as a bookcase or closed cabinet unless there is good provision for ventilation. The A19 is designed to run warm during normal operation.
- Do not place any other component or item on top of the amplifier as this may obstruct airflow around the heat-sink, causing the amplifier to run hot. (The unit placed on top of the amplifier would become hot, too.)
- Make sure the remote-control receiver to the right of the front panel display is unobstructed, otherwise this will impair the use of the remote-control.
- Do not place your record deck on top of this unit. Record decks are very sensitive to the noise generated by mains power supplies which will be heard as a background 'hum' if the record deck is too close.
- The normal function of the unit may be disturbed by strong electromagnetic interference. If this occurs, simply reset the unit with the power button, or move the unit to another location.

Power

The amplifier is supplied with a moulded mains plug already fitted to the lead. Check that the plug supplied fits your supply – should you require a new mains lead, please contact your Arcam dealer.

If your mains supply voltage or mains plug is different, please contact your Arcam dealer immediately

Push the IEC plug end of the power cable into the socket on the back of the amplifier, making sure that it is pushed in firmly. Plug the other end of the cable into your mains socket and, if necessary, switch the socket on.

Interconnect cables

We recommend the use of high-quality screened cables that are designed for the particular application. Other cables will have different impedance characteristics that will degrade the performance of your system (for example, do not use cabling intended for video use to carry audio signals). All cables should be kept as short as is practically possible.

It is good practice when connecting your equipment to make sure that the mains power-supply cabling is kept as far away as possible from your audio cables. Failure to do so may result in unwanted noise in the audio signals.

A19 connections

Power inlet

Connect the correct mains cable here.

Phono earth terminal

For connecting your turntable earth lead, if required.



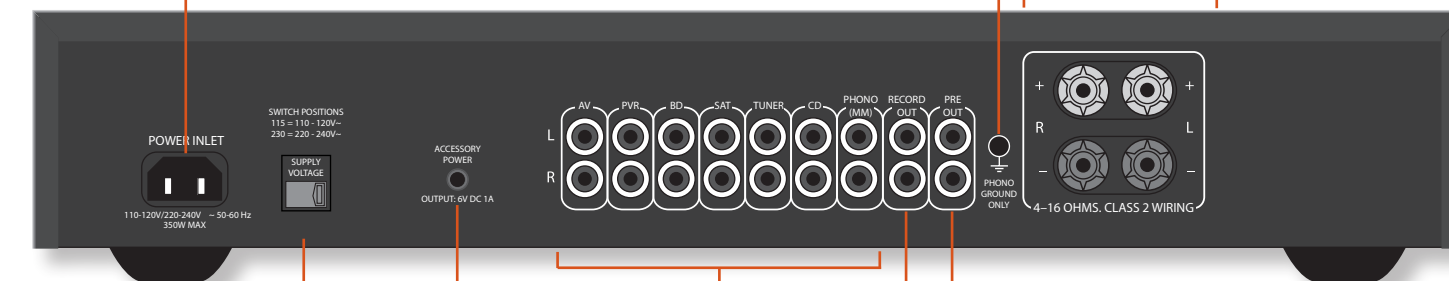
Note that this terminal must not be used as a safety earth.

Speaker terminals

See page 9 for information on connecting loudspeakers.

Aux input

Analogue 3.5mm stereo jack socket, intended for connecting a portable MP3 player.



Voltage select

Ensure that the voltage selected matches your local power supply.

Accessory Power

3.5mm mono jack socket for accessory power cable (supplied). The cable provides two 2.1mm DC jacks to power rLink and/or rBlink accessories.

Audio inputs

The labels above the connectors give suggested audio inputs, although any suitable device may be connected to the line-level inputs. (Note, however, that the name of the input shown on the front-panel display cannot be changed.)

AV, PVR, BD, SAT, TUNER and CD are all line-level inputs.

The PHONO (MM) input has different characteristics. See page 7 for more information and page 12 for the phono input specification.

Pre-amplifier output

PRE OUT provides the pre-amp output for use in a bi-amplified system (for example, with a P38 power amplifier).

See page 9 for more information.

Record output

RECORD OUT is a line level output for use in recording from other sources.

See page 7 for more information.



Phones

3.5mm stereo jack socket, intended for use with a set of headphones.

See page 10 for more information.

Note

Please read the 'Placing the unit', 'Power' and 'Interconnect cables' sections on page 5 before connecting up your A19 integrated amplifier!

Audio inputs

Although the inputs are labelled for specific devices, all have the same characteristics and each may be used with any line-level product. The exception is the **PHONO (MM)** input (see page 12 for the specification).

AV

Intended for the analogue outputs from general audio-visual equipment, such as a VCR or digital TV/satellite receiver

PVR

Intended for the analogue outputs from a Personal Video Recorder, or similar device.

BD

Intended for the analogue outputs from a Blu-ray or DVD-player.

SAT

Intended for the analogue outputs from a satellite TV receiver or cable TV box.

TUNER

Intended for the analogue outputs from an FM, AM or DAB radio tuner.

CD

Intended for the analogue outputs from a CD player.

AUX

This is a 3.5mm analogue input on the front panel intended for use with devices such as MP3 players. To connect an MP3 player (or other portable audio device) you will need a 3.5mm to 3.5mm cable connected between the **AUX** input and the headphone output socket of the player.

Phono input

Phono-level input

The A19 provides a pre-amplification stage to treat the low-voltage output from a MM (moving magnet) cartridge. Input specifications are given on page 12.

Output volume is shown on the front display as *PHONO 20*, for example.

Line-level phono input

The phono input may be changed from phono-level to line-level. Press the front panel **PHONO** and **BALANCE** buttons simultaneously and use the control knob to change the setting. The front panel display shows *LINE- OFF* (i.e. phono) or *LINE- ON* respectively.

If you wish to use an external phono amplifier, connect its output to the **PHONO (MM)** input, but make sure that *LINE- ON* is selected, since a phono amplifier produces line-level input.

With the input defined in this way, output volume is shown on the front display as *LINE 20*, for example.

Record output

The A19 is equipped with an audio recording loop which may be used with recording devices such as a CD recorder, DAT recorder, cassette recorder, VCR or PVR.

Connect the **RECORD OUT** output socket to the input socket of your recording device (usually labelled **RECORD** or **IN**).

To record from a particular source, press the appropriate source button (for example, **TUNER**).

Pre-amplifier output

To use your A19 as a dedicated pre-amplifier, or as part of a bi-amp'd system, connect the **PRE OUT** sockets to the input sockets of your power amplifier.

See page 9 for connection details and see page 12 for the output specification.

remote control

The CR108 remote control

The CR108 is pre-programmed for use with the A19.

Make sure you have fitted the two AAA batteries supplied before attempting to use the remote control.

1. With the CR108 remote face-down, press down on the non-slip indentations of the battery compartment cover and slide the cover off.
2. Insert the two 'AAA' batteries supplied. Take care to insert the batteries in the right direction by following the '+' and '-' marks in the battery compartment.
3. Slide the battery compartment cover back and lock it in place with a click.

The CR108 requires a clear line of sight to the front panel display of A19 to ensure reliable operation.



Amplifier commands

	This toggles a powered-on A19 amplifier between 'standby' and 'on' modes.																
	Toggles the mute function to silence speaker output. The source is displayed on screen followed by <i>MT</i> (mute), when active.																
VOL - VOL +	Decrease (VOL-) and increase (VOL+) amplifier volume																
Source keys	Selects the amplifier input: <table border="0"> <tr><td>BD</td><td>Blu-ray Disc or DVD input</td></tr> <tr><td>PVR</td><td>Personal Video Recorder input</td></tr> <tr><td>TUN</td><td>DAB/FM/AM tuner input</td></tr> <tr><td>AV</td><td>AV (television sound) input</td></tr> <tr><td>PHONO</td><td>Phono input</td></tr> <tr><td>AUX</td><td>Auxiliary line input</td></tr> <tr><td>CD</td><td>CD input</td></tr> <tr><td>SAT</td><td>Satellite decoder input</td></tr> </table>	BD	Blu-ray Disc or DVD input	PVR	Personal Video Recorder input	TUN	DAB/FM/AM tuner input	AV	AV (television sound) input	PHONO	Phono input	AUX	Auxiliary line input	CD	CD input	SAT	Satellite decoder input
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AV	AV (television sound) input																
PHONO	Phono input																
AUX	Auxiliary line input																
CD	CD input																
SAT	Satellite decoder input																
BAL	Adjust balance levels (using - and + controls) between <i>LS</i> (left), through <i>U</i> , to <i>RS</i> (right)																
DISP	Cycles through display panel brightness options (bright, off, dim)																

loudspeakers

Single wiring

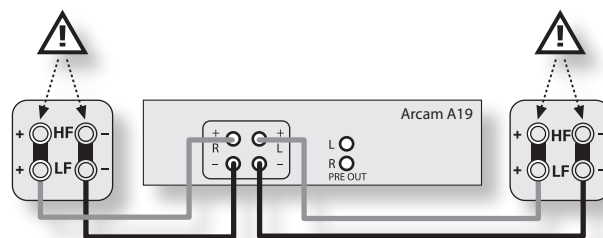
Single wiring is the conventional wiring method of running a single cable per channel between the amplifier and the speaker; this is the easiest technique.

If each speaker has more than one pair of connecting terminals, use the terminals labelled **LF** or 'Low Frequency' for each speaker.

Connect the positive terminal of the right speaker connection on the amplifier (coloured red and labelled **+R**) to the positive terminal of your right speaker.

Similarly, connect the negative terminal of the amplifier (coloured black and labelled with **R-**) to the negative terminal of your speaker. Repeat the process for the left speaker, using the amplifier terminals labelled **+L** and **L-**.

If your speakers support bi-wiring, then there is a strip of conductive metal on the speakers connecting the low-frequency terminals to those for the higher-frequencies; this **MUST NOT BE REMOVED** in a single-wired system.



An A19 connected to speakers using single wiring

Notes on making speaker connections

- Do not make any connections to any amplifier while it is switched on. We recommend that your amplifier is completely disconnected from the mains supply before starting.
- Before switching your amplifier(s) on for the first time after connecting to speakers, please check all connections thoroughly. Ensure that bare wires or cables are not touching each other or the amplifier's chassis (which could cause short circuits), and that you have connected positive (+) to positive and negative (-) to negative. Be sure to check the wiring for both the amplifier **and** the speaker.
- After making connections: switch the amplifier(s) on, select a source signal, then gradually increase the volume to the required listening level.
- If you are unsure as to how your system should be connected, or need advice on bi-amping, please contact your Arcam dealer who will be happy to help you.

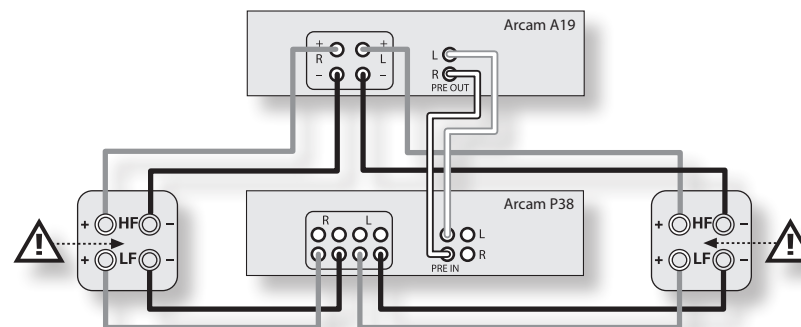
Bi-amping

Bi-amping is the separation of the amplification of low- and high-frequency signals over two amplifiers.

Bi-amping requires the use of two amplifiers per channel. Normally, your A19 is used to drive the high-frequency (treble) speakers, with a P38 used for the lower (bass) frequencies.

Connect your A19 to the speakers as described for single wiring, with the exception that the A19 should be connected to the speaker terminals labelled **HF** or 'High Frequency'. Then connect the power amplifier (an Arcam P38 for example) to the **LF** or 'Low Frequency' terminals, as in the diagram. A pair of audio interconnect cables are also required to connect the pre-amp outputs of the A19 to the power amp inputs of the P38.

Note that the strip of metal on the speakers connecting the lower terminals to the upper terminals **MUST BE REMOVED**. Failure to do so will result in damage to both amplifiers, which will not normally be covered under warranty.



An A19 and P38 connected to speakers using bi-amping

operation



Switching on

The front panel **POWER** button switches the unit on and off.

The power light (next to the 'A19 Integrated Amplifier' text) indicates the state of the amplifier: it changes from red to orange then green if mains power is connected and the unit is switched on.

If the unit is left unused for an extended period of time it will go into standby to reduce power consumption. Press **AUX** & **BALANCE** to adjust the time of this feature.

Display

The front panel **DISPLAY** button (or **DISP** on the remote control) changes the display brightness between 'on', 'dimmed' and 'off'. If the A19 is powered off with the display brightness set to 'off', the display resumes to 'dimmed' when the unit is powered on again.

Selecting an audio source

The audio source may be selected from the front panel (**PHONO**, **AUX**, **CD**, **TUNER**, **SAT**, **BD**, **PVR** or **AV**), or the remote control (**BD**, **PVR**, **TUN**, **AV**, **PHONO**, **AUX**, **CD** or **SAT**).

In each case, the source is selected from the input sockets with the corresponding name.

Listening

Volume control

Use the control knob (or the +/- buttons on the remote) to change the volume. Turn the knob clockwise to increase the volume, anti-clockwise to reduce it.


Listening using headphones


The headphones socket (**PHONES**) accepts headphones with an impedance rating between 8Ω and 2kΩ, fitted with a 3.5mm stereo jack plug.

The pre-amp outputs and speakers are muted when headphones are plugged in and the front panel display shows *HEADPHONE*.

The headphones socket is always active, unless output has been muted.

Muting output

The output of the A19 can be silenced by pressing **MUTE** on the front panel (or  on the remote control). If the unit is muted, the power light changes to orange and the source is shown on the front display panel (e.g. *PVR MT*).

Press **MUTE**/ for a second time (or change the volume) to cancel mute.

Adjusting the balance

The balance setting allows you to increase the volume of one channel (left or right) relative to the other. Altering the balance may help to restore the stereo image for an off-centre listening position.

Balance can be adjusted from the front panel or from the remote control. Click the **BALANCE** button (or **BAL** on the CR108) to view the current setting, then use the control knob (or the +/- buttons on the remote) to change the setting – from *LS* to *RS*, via the neutral value *0*.

Recording an audio source

The A19 allows you to record and monitor the sound from any connected source.

The back panel **REC OUT** socket can be connected to the input sockets of your recording device (these are usually labelled **RECORD** or **IN**).

To record from a particular source, press the appropriate source button (for example, **TUNER**).

Troubleshooting

If you are having trouble with your amplifier, check the following items.

No sound

Check the following:

- The A19 amplifier is powered up and switched on.
- The amplifier is not muted (i.e. *M* (mute) is not shown on the display panel; the power light is showing green, not orange or red).
- The selected source is generating audio (e.g., if CD is selected, then the CD is playing).
- The speaker outputs are connected on the A19 (or on the power amplifier, in the case of a bi-amping arrangement).

Sound cuts-out unexpectedly

If the temperature of the internal heatsink rises above a safe level, then a thermal cut-out inside the amplifier operates to protect the unit and the protection system temporarily removes power to the speakers. The system will reset itself as the heatsink cools down.

- With two pairs of low-impedance speakers connected (6Ω or less), overloads are more likely. Overloading the amplifier may cause it to shut down because of overheating.
- Note that, due to the high output voltage from some CD players, it is possible to drive your amplifier at full power even though the volume is not set at maximum.

specifications

Continuous power output (20Hz—20kHz at 0.5% THD), per channel	
Both channels, 8Ω, 20Hz—20kHz	50W
Single channel, 4Ω, at 1kHz	90W
Harmonic distortion, 80% power, 8Ω at 1kHz	0.003%
Inputs	
Phono (MM) cartridge:	
Input sensitivity at 1kHz	5mV
Input impedance	47kΩ + 100pF
Frequency response (ref. RIAA curve)	20Hz—20kHz ± 1dB
Signal/noise ratio (Awt'd) 50W, ref. 5mV input	80dB
Overload margin, 50mV at 1kHz	20dB
Line and AV inputs:	
Nominal sensitivity	1V
Input impedance	10kΩ
Maximum input	4.6Vrms
Frequency response	20Hz—20kHz ± 0.2dB
Signal/noise ratio (Awt'd) 50W, ref. 1V input	105dB
Preamplifier output	
Nominal output level	630mV
Output impedance	230Ω
Headphone output	
Maximum output level into 600Ω	4V
Output impedance	1Ω
Load range	16Ω—2kΩ
Accessory power output	
Using accessory power cable supplied, provides two 2.1mm DC connectors	6V, 1A
General	
Mains voltage	110–120V~ or 220–240V~
Power consumption (maximum)	350W
Dimensions W x D x H (including feet)	432 x 275 x 85mm
Weight (net)	8.5kg
Weight (packed)	10.2kg
Supplied accessories	Mains lead CR108 remote control 2 x AAA batteries Accessory power cable
E&OE	
NOTE: All specification values are typical unless otherwise stated.	

Continual improvement policy

Arcam has a policy of continual improvement for its products. This means that designs and specifications are subject to change without notice.

product guarantee

Worldwide Guarantee

This entitles you to have the unit repaired free of charge, during the first two years after purchase, provided that it was originally purchased from an authorised Arcam dealer. The Arcam dealer is responsible for all after-sales service. The manufacturer can take no responsibility for defects arising from accident, misuse, abuse, wear and tear, neglect or through unauthorised adjustment and/or repair, neither can they accept responsibility for damage or loss occurring during transit to or from the person claiming under the guarantee.

The warranty covers:

Parts and labour costs for two years from the purchase date. After two years you must pay for both parts and labour costs. **The warranty does not cover transportation costs at any time.**

Claims under guarantee

This equipment should be packed in the original packing and returned to the dealer **from whom it was purchased**. It should be sent carriage prepaid by a reputable carrier – **not** by post. No responsibility can be accepted for the unit whilst in transit to the dealer or distributor and customers are therefore advised to insure the unit against loss or damage whilst in transit.

For further details contact Arcam at:

Arcam Customer Support Department, Pembroke Avenue, Waterbeach, CAMBRIDGE, CB25 9QR, England or via www.arcam.co.uk.

Problems?

If your Arcam dealer is unable to answer any query regarding this or any other Arcam product please contact Arcam Customer Support at the above address and we will do our best to help you.

On-line registration

You can register your product on-line at www.arcam.co.uk.

Correct disposal of this product



This marking indicates that this product should not be disposed with other household waste throughout the EU.



To prevent possible harm to the environment or human health from uncontrolled waste disposal and to conserve material resources, this product should be recycled responsibly.

To dispose of your product, please use your local return and collection systems or contact the retailer where the product was purchased.